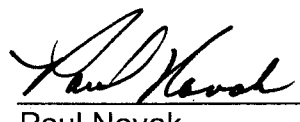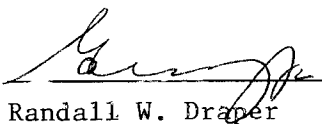Modification No. 4 to Cooperative Agreement
Between
General Services Administration, Federal Acquisition Institute
And
National Association of Purchasing Management
And
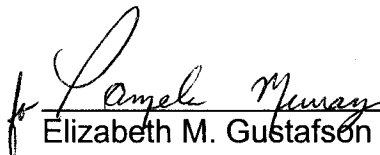Arizona Board of Regents, Arizona State University

1. In June 1998, a Cooperative Agreement (Coop Agreement) was entered into and executed by and between the Federal Acquisition Institute, US General Services Administration (GSA), an agency of the United States Government, represented by the Deputy Associate Administrator for Acquisition Policy, the Arizona Board of Regents for and on behalf of Arizona State University (ASU), and the National Association of Purchasing Management (NAPM). In accordance with Section VI of the Coop Agreement, GSA obligated certain funds for Fiscal Year 1998. Modification No. 2, dated February 1999, obligated certain funds for Fiscal Year 1999. Modification No. 3, dated March 2000, obligated certain funds for Fiscal Year 2000. These funds have been distributed by GSA to ASU and NAPM in accordance with, and to ensure compliance under the Treasury and General Government Appropriations Act, 1998, Pub.L.No. 105-61, 111 Stat. 1272 (Oct. 10, 1997); Omnibus Consolidated and Emergency Supplemental Appropriations Act, 1999, Pub.L.No. 105-277,112 Stat. 2681 (Oct.21, 1998); Treasury and General Government Appropriations Act, 2000, Pub.L.No. 106-58,113 Stat 430 (Sept. 29, 1999); HR Conf.RepNo. 106-319; HR. Rep.No. 106-231; and other authorities set forth in Section V of the Coop Agreement.

2. This document, Modification No. 4 (Mod.No. 4), obligates additional funds for authorized activities under the Coop Agreement, by amending Section VI of the Coop Agreement. The amount of funds available to be obligated will increase from an amount not to exceed $4,294,794 to an amount not to exceed $5,144,812, an increase of $850,018 to support the project until completion of the December, 2003 milestones. This $850,018 increase is requested by ASU, not by the other parties in this cooperative agreement. See Consolidated Appropriations Act 2001, Pub.L.No. 106-554, 114 Stat.2763 (Dec. 21, 2000); See also HR Conf. Rep. No. 106-1033, at 392 (2000).

3. Mod. No. 4 also amends Section III of the Coop Agreement by extending the term of the agreement, based on available appropriations, from September 2000 to September 2001, for support of the project through December, 2003.

4. Attached to this Mod.No. 4 to the Coop Agreement, and incorporated herein by reference, are revised budget figures provided by ASU to GSA.

By executing this Modification Number 4, the parties below hereby agree on behalf of their respective entities to the terms and conditions contained herein, and agree that any issue not addressed in this Modification Number 4 is controlled by the terms of the original Cooperative Agreement and subsequent modifications executed by the parties. NAPM, by executing this Mod. No. 4, specifically notes, and it is agreed to by all other parties executing this modification, that NAPM has no performance responsibilities included in either modification 3 or 4. All new technology applications developed, outcomes, and other information will be shared with, and access offered to, the other parties in this Cooperative Agreement.

David Drabkin   Date
Deputy Associate Administrator
Office of Acquisition Policy
U.S. General Services Administration

Paul Novak   Date
CEO
National Association of
   Purchasing Management

Randall W. Draper   Date
Director
Research Administration

Arizona Board of Regents
  For and on behalf of
Arizona State University

Elizabeth M. Gustafson   Date
Controller
Office of Controller
U.S. General Services Administration

Accounting Class Code: 142.1.K00PH921.50.25.H40.516

ACT# K10547278

Amount: $850,018.00

Attachment

21st Century Distributed Learning Environment

Arizona State University has developed a model in which faculty, researchers, and students receive a continuum of support, ranging from training on the use of networked technology, through one-on-one support in the development of instructional delivery, to the construction of the means by which students will interact with faculty and one-another. To effectively maximize the resources and potential of Internet-based instruction, innovative delivery systems must be utilized, combined and coordinated with efforts of a team of systems design and administration personnel, applications development experts, instructional specialists, graphics and computer-based design artists, and research specialists. These efforts must be driven by assessed need in the content areas and built upon a solid foundation of data-based applied research.

This phase of the 21st Century Distributed Learning Environment project extends research and development in technology supported education to improve opportunities for federal government employees and their constituents. Data gathered, analyzed, and interpreted from this project provides an empirical framework for establishing effective and efficient technology-supported government-wide training approaches.

Research and development is conducted with respect to the provisions of the Sharable Courseware Reference Model (SCORM), examining how federal organizations may effectively utilize new and emerging technologies to establish and sustain e-learning systems of the future. Accessibility of technology supported learning environments and universal access provisions as mandated by *Section 508 of the Workforce Investment Act (1998)* and *Section 504 of the Rehabilitation Act (1973)* are a central component of these efforts. This phase builds upon established infrastructure and course development to extend impact from the campus community to the federal government. The development of leading edge technologies and applications are fostered within this research, development and delivery environment with the addition of a component to assess tools and the application of standards toward distributed learning environments. Innovation and excellence in distributed education is modeled and applied while new techniques for instruction and education are refined. The information and resource dissemination becomes a dynamic and routine component of the ongoing federal priorities in support of training and instruction.

Priorities:
- Establish and evaluate the necessary network infrastructure to support the development and use of distributed learning environments.
- Establish the means for capturing and distributing data via networked resources. Provide the necessary infrastructure to enable the access and distribution of viable video and audio applications.
- Assess the viability of the use of audio, video, and graphics in distributed, e-learning environments.
- Analyze and construct algorithms and data structures for interactive multimedia including video and audio production and post-production, graphics techniques, and compression, archiving, retrieval, and distribution techniques.
- Produce and implement instructional delivery techniques that are facilitated by the effective use of audio, video and graphic capabilities of technology.
- Develop and implement approaches that ensure universal access to distributed learning environments to all individuals regardless of disability of handicapping condition.
- Disseminate descriptive and empirical data contributing to ongoing development and implementation of effective and efficient distributed learning environments.

Modification No. 3 to Cooperative Agreement
Between
General Services Administration, Federal Acquisition Institute
And
National Association of Purchasing Management
And
Arizona Board of Regents, Arizona State University

I.   In June, 1998, a Cooperative Agreement (Coop Agreement) was entered
     into and executed by and between the Federal Acquisition Institute, US
     General Services Administration (GSA), an agency of the United States,
     represented by the Deputy Associate Administrator for Acquisition Policy,
     the Arizona Board of Regents for and on behalf of Arizona State
     University (ASU) and the National Association of Purchasing Management
     (NAPM). In accordance with Section VI of the Coop Agreement, GSA
     obligated certain funds for Fiscal Year 1998 and per Modification No. 2
     dated February, 1999 obligated certain funds for Fiscal Year 1999. These
     funds have been distributed by GSA to ASU and the NAPM in accordance
     with, and to ensure compliance under, the Treasury and General
     Government Appropriations Act, 1998, Pub.L. No. 105-61, 111 Stat. 1272
     (October 10, 1997), and Omnibus Consolidated and Emergency
     Supplemental Appropriations Act 1999, Pub.L. No. 105-277 Stat. 2681
     and other authorities set forth in Section V of the Coop Agreement.

II. This document, Modification No. 3 (Mod. No. 3), obligates additional funds
     for authorized activities under the Coop Agreement, amending Section VI
     of the Coop Agreement. The amount of funds available to be obligated
     will increase from an amount not to exceed $3,544,794 to an amount not
     to exceed $4,294,794, an increase of $750,000 to support the project until
     completion of the December 2001 milestones." See the Treasury and
     General Government Appropriations Act, 2000, Pub.L. No. 106-5; HR
     Conf. Rep. No. 106-231; see also SR Conf. Rep No. 106-87.

III. Mod. No. 3 also amends Section III of the Coop Agreement by extending
     the term of the agreement, based on available appropriations, from
     September 1999 to September 2000, for support of the project through
     December 2001.

IV. Attached to this Mod. No. 3 to the Coop Agreement, and incorporated
     herein by reference, are the revised budget figures provided by ASU to
     GSA.

By executing this Modification Number 3, the parties below hereby agree on behalf of their respective entities to the terms and conditions contained herein, and agree that any issue not addressed in the Modification Number 3 is controlled by the terms of the original Cooperative Agreement executed by the parties.

LES DAVISON   Date
Acting Deputy Associate Administrator
Office of Acquisition Policy
U.S. General Services Administration

PAUL NOVAK   Date
Executive President
National Association of
   Purchasing Management

JANICE D. BENNETT   Date
Director
Office of Research and Creative
   Activities
Arizona Board of Regents
   for and on behalf of
Arizona State University

ELIZABETH M. GUSTAFSON   Date
Controller
Office of Controller
U.S. General Services Administration

Accounting Class Code: _142.0.K00PH921.50.25.H40.516_

ACT#_ K 9 4 2 5 5 8 2 9 _____

Amount _$ 750,000_____

Modification No. 2 to Cooperative Agreement
between
General Services Administration, Federal Acquisition Institute
and
National Association of Purchasing Management
and
Arizona Board of Regents, Arizona State University.

I.   In June, 1998, a Cooperative Agreement (Coop Agreement) was entered into and executed by and between the Federal Acquisition Institute, US General Services Administration, an agency of the United States Government (GSA), represented by the Deputy Associate Administrator for Acquisition Policy, the Arizona Board of Regents for and on behalf of Arizona State University (ASU) and the National Association of Purchasing Management (NAPM). In accordance with Section VI of the Coop Agreement, GSA obligated certain funds for Fiscal Year 1998. These funds have been distributed by GSA to ASU and the NAPM in accordance with, and to ensure compliance under, the Treasury and General Government Appropriations Act, 1998, Pub. L. No. 105-61, 111 Stat. 1272 (October 10, 1997), and other authorities set forth in Section V of the Coop Agreement.

II.   This document, Modification Number 2 (Mod. No. 2), obligates additional funds for authorized activities under the Coop Agreement, amending Section VI of the Coop Agreement. The amount of funds available to be obligated will increase from an amount not to exceed $1, 951,604 to an amount not to exceed $3,544,794, an increase of $1,593,190. See Omnibus Consolidated and Emergency Supplemental Appropriations Act, 1999, Pub. L. No. 105-277, 112 Stat. 2681, 2681-503, § 117(d) (Oct. 21, 1998); H.R. Conf. Rep. No. 105-825, 144 Cong. Rec. at H11516 (Oct. 19, 1998); see also H.R. Conf. Rep. No. 105-789, 144 Cong. Rec. at H9895 (Oct. 7, 1998).

III.   Mod. No. 2 also amends Section V of the Coop Agreement by extending the term of the agreement, based on available appropriations, from September 1998 to September 1999. Funding for the duration of the project, expected to extend to December 2001, is contingent upon the availability of appropriated funds earmarked for the project in each fiscal year extending beyond September 1999.

IV.   Attached to this Mod. No. 2 to the Coop Agreement, and incorporated herein by reference, are the revised budget figures provided by ASU and NAPM to GSA.

By executing this Modification Number 2, the parties below hereby agree on behalf of their respective entities to the terms and conditions contained

1

herein, and agree that any issue not addressed in the Modification Number 2 is controlled by the terms of the original Cooperative Agreement executed by the parties.

Edward / Lit   2/10/99
_____   _____
/Date

IDA M USTAD
Deputy Associate Administrator
Office of Acquisition Policy
U.S. General Services
    Administration

Paul Novak   2/22/99
_____   _____
Date

PAUL NOVAK
Executive President
National Association of
    Purchasing Management

Janice Bennett   2.18-99
_____   _____
Date

JANICE D. BENNETT
Director
Office of Research and Creative
    Activities
Arizona Board of Regents
    for and on behalf of
Arizona State University

Pamela Pen   2/25/99
_____   _____
for ELIZABETH M. GUSTAFSON   Date
Controller
Office of the Controller
U.S. General Services
    Administration

142.9. K00PH921.50. 25. H40.516
Accounting Class Code:_____

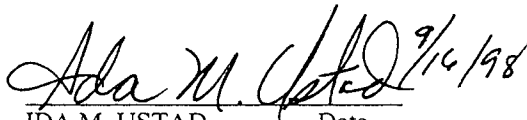ACT #:_____K832.55830_____

Amount_____$1,593,190_____

2

Modification No. 1 to Cooperative Agreement
Between
General Services Administration, Federal Acquisition Institute
And
National Association of Purchasing Management
And
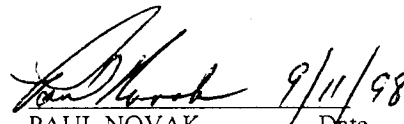Arizona Board of Regents, Arizona State University

The purpose of this modification is to increase the amount of funds to be obligated by GSA for the project described in Section VI. Funding of this agreement from NTE $ 1,691,604 to NTE $1,951,604 in FY 1998 to cover the following additional requirements as identified in the full-project team kick-off meeting (Tempe Arizona):
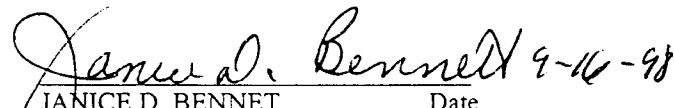
- ASU/IT interface with technical partners and consultants: One advanced programmer/designers and Rollout and Ribbon Cutting IT Materials. $133,202

- Multimedia content development/production - interface/infrastructure: additional $100,000 to a new total of $144,000

Revised budget from NAPM/ASU is incorporated into and made part of this agreement.

All other terms and conditions remain unchanged.

IDA M. USTAD   Date
Deputy Associate Administrator
Office of Acquisition Policy
U.S. General Services Administration

PAUL NOVAK   Date
Executive President
National Association of
    Purchasing Management

JANICE D. BENNET   Date
Director
Office of Research and Creative Activities
Arizona Board of Regents for and on behalf
Of Arizona State University

ELIZABETH M. GUSTAFSON   Date
Controller
Office of the Controller
U.S. General Services Administration

COOPERATIVE AGREEMENT

between

GENERAL SERVICES ADMINISTRATION
FEDERAL ACQUISITION INSTITUTE

and

NATIONAL ASSOCIATION OF PURCHASING MANAGEMENT

and

ARIZONA BOARD OF REGENTS
ARIZONA STATE UNIVERSITY

I. PURPOSE:

This agreement is between the Federal Acquisition Institute (FAI), General Services Administration (GSA), an agency of the United States Government, represented by the Deputy Associate Administrator, Office of Acquisition Policy, and National Association of Purchasing Management hereinafter referred to as NAPM, represented by its Executive President and Chief Executive Officer, and the Arizona Board of Regents for and on behalf of Arizona State University (ASU), represented by the Vice Provost for Information Technology. The purpose of this agreement is to develop and maintain an Internet-based 21st Century Distributed Learning Environment, incorporating both current and leading-edge technologies, to benefit both the public and private sector acquisition communities.

II. RESPONSIBILITIES

A. General

1. The parties agree to be bound by all applicable state and Federal laws and regulations including those governing the acquisition of goods and services, Equal Employment Opportunity and non-discrimination.
2. The parties agree that OMB Circulars A-110 and A-21 shall apply to this agreement.
3. The parties specifically agree that NAPM and/or ASU may copyright any work that is subject to copyright and was developed, or for which ownership was purchased, under this agreement. GSA reserves a royalty-free, nonexclusive and irrevocable right to reproduce, publish, or otherwise use the work for Federal purposes, and to authorize others to do so.
4. The parties agree that the design of the network infrastructure, as well as the hardware and software supporting systems, will ensure that the Year 2000 won't adversely affect the system's inputting, processing, outputting, storing, or exchanging of data.

B. NAPM and ASU shall:
The specific responsibilities of NAPM/ASU are set forth in Attachment 1, the amended NAPM/ASU proposal dated April 9, 1998, which is incorporated into and made part of this agreement. NAPM/ASU are also responsible for the following:

1. Authorize Project Manager to administer funds for the Project.

2. Provide the GSA Project Manager with bi-monthly narrative Progress Reports on or before the 15th of the second and every other month subsequent to the execution of this Cooperative Agreement, and continuing until completion of this Project. These bi-monthly Progress Reports shall include, at a minimum:

a) A narrative of the accomplishments (progress) towards each milestone/deliverable.
b) An amended timeline, if necessary.

3. Provide the GSA Project Manager with bi-monthly Financial Status Reports on or before the 15th of the second month and every other month subsequent to the execution of this Cooperative Agreement, and continuing until completion of this Project. These bi-monthly Financial Status Reports shall use the Federal fiscal year, and shall, at a minimum:
a) Begin with the baseline cost projection, against which shall be listed the following:
1) Outlays, including a subtotal of outlays for the current reporting period, fiscal year to day, and total project to date.
2) Accrued expenses and their estimated payment date, including a subtotal of accrued expenses for the current reporting period, fiscal year to date, and total project to date.
3) Undelivered orders and their estimated payment date, including a subtotal of undelivered orders for the current reporting period, fiscal year to date, and total project to date.
4) The total unobligated balance; and,
5) A certification signature by the NAPM/ASU Project Manager that these expenditures cited in the report described in paragraph 4 (below) are for services directly related to the GSA/NAPM/ASU Project.

4. Maintain an official file of Project financial records sufficient for a complete financial audit.

5. Meet with the GSA Project Manager six times (5 in Arizona and one in Washington, DC) to review overall project management issues. The first meeting will be held one month from the start of the project, with the remainder held every 3 months thereafter, with the exception of the final product demonstration which will be held at the completion of the project in December 1998.

6. Provide the GSA Project Manager with a demonstration of all products funded by this Cooperative Agreement on or before December, 1998, and thereafter as agreed by the parties.

7. Not later than during the demonstration described in paragraph 6, provide GSA with a complete copy of all software components developed under this agreement, including a complete set of the written documentation.

8. Comply with Single Audit Act of 1984, as amended, by reporting to the state agency the funds received as a result of this agreement so that it may be recorded on the financial records of the State Of Arizona as federal financial assistance.

C. GSA shall:
The specific responsibilities of GSA/FAI are set forth in Attachment 2, which is incorporated into and made part of this agreement.

III. DURATION OF AGREEMENT

Parties anticipate performance of this project will continue until December 2001. Funding of $1,691,604 currently exists through September, 1998, for support of the project through December 1998. Future funding is dependent upon further funding appropriated for this purpose.

IV. AMENDMENT/TERMINATION

Changes to the terms of this agreement must be in the form of a written modification. The modification must be signed by all parties to the original agreement, or their authorized designees. Should it be necessary to cancel this agreement, either in its entirety or in part, the NAPM or ASU is authorized to bill GSA for expenses incurred up to the time of cancellation. This agreement may be canceled by either party upon 60 days of written notification.

V. AUTHORITY

The authorities for this agreement are 41 U.S.C. 405(d)(5) and Title IV of the Treasury and General Government Appropriations Act, 1998, Pub.L.No. 105-61,111 Stat. 1272 (1997) which provides appropriations in GSA's Policy and Operations Appropriation.
This agreement is also consistent with the Government Employees Training Act, 5 U.S.C. Chapter 41 and the Federal Grants and Cooperative Agreements Act, 31 U.S.C. Sections 6301-6308.

VI. FUNDING

The funds to be obligated by GSA for the project described in this agreement shall not exceed $1,691,604 in FY 1998 and is subject to the availability of funds. GSA will obligate the funds, in an amount not to exceed $1,691,604 , by September 30, 1998, to support the project until completion of the December 1998 milestones. GSA will not provide funds to NAPM or ASU as a lump sum, but GSA will forward fund to NAPM and ASU when presented a request certifying that funds have been expended or will be expended within 45 days.

VII. POINTS OF CONTACT:

A. NAPM

1. PROJECT MANAGER

NAPM, JACKIE BLESSINGTON, CPM
P.O. Box 22160
Tempe, AZ 85285-2160

E-Mail: jblessington@napm.org
Voice: 602-752-6276
Fax: 602-752-7890

2. FINANCIAL

NAPM, Terri Tracey
Vice President, Program and Product Development
P.O. Box 22160
Tempe, AZ 852-2160

E-Mail: ttracey@napm.org
Voice: 602-752-6276 480-
Fax: 602-752-7890

B. ASU

1. PROJECT MANAGER AND FINANCIAL MANAGER

ASU, William E. Lewis, PH.D.
  Vice Provost for Information Technology
  P.O. Box 870101
  Tempe, AZ 85287-0101

  E-Mail: william.lewis@asu.edu
  Voice: (602) 965-9059
  Fax: (602) 965-7933

C. GSA

1. PROJECT MANAGER

Gayle Messick
  U.S. General Services Administration
  Federal Acquisition Institute
  18th & F Streets, NW
  Room 4208
  Washington, DC 20405

  E-Mail: gayle messick@gsa.gov
  Voice: 202-501-2980
  Fax: 202-501-3341

2. FINANCIAL MANAGER
Bettie A. Chaszar-Feit
  U.S. General Services Administration
  Federal Acquisition Institute
  18th & F Streets, NW
  Room 4206
  Washington, DC 20405

  E-Mail: bettie.feit@gsa.gov
  Voice: 202-208-4724
  Fax: 202-501-3341

By executing this Cooperative Agreement, the parties below hereto agree to the terms and conditions contained herein.

IDA M. USTAD   Date
Deputy Associate Administrator
Office of Acquisition Policy
U.S. General Services Administration

PAUL NOVAK   Date
Executive President
National Association of
   Purchasing Management

JANICE D. BENNETT,   Date
Director
Office of Research and Creative Activities
Arizona Board of Regents for and on behalf
   of Arizona State University

ELIZABETH M. GUSTAFSON Date
Controller
Office of the Controller
U.S. General Services Administration

Accounting Class Code: 142.8 KOOPH921. 50. 25. H40.516
ACT #:   K 7 3 3 7 5 8 0 1

Attachment 1

21st Century Distributed Learning Environment

PROPOSAL

Table of Contents

The attached second draft proposal integrates both areas of ASU (College of Business and Information Technology) as well as NAPM. All budgets have been integrated.

21st CENTURY DISTRIBUTED LEARNING ENVIRONMENT
Proposal
April 9, 1998

GOAL:

Along with FAI, NAPM (National Association of Purchasing Management) and ASU (Arizona State University's College of Business and Information Technology Departments) will develop and maintain an internet-based 21st Century Distributed Learning Environment, incorporating both current and leading-edge technologies, to benefit both the public and private sector acquisition communities. A digital infrastructure will be developed to distribute training, education, and mentoring programs, as well as online performance support tools.

Concurrent with development and deployment of asynchronous digital training utilizing existing ubiquitous technologies, significant research and development will be undertaken to discover those synchronous and asynchronous teaching methodologies to best deliver training in the 21st century. Over the next five years, various educational, instructional, mentoring, and performance support products and programs will be designed, developed, tested, adjusted, and rolled out. As new technologies are discovered through the R&D effort throughout the five-year period, they will be incorporated into the Distributed Learning Environment.

Additionally, feasibility studies will be conducted to ascertain whether a fifth module of the NAPM Certification Examination (C.P.M.), or a different version of the current exam, should be developed and deployed to enable federal procurement personnel to become C.P.M.s with a concentration in federal procurement.

In summary, a number of initiatives will transpire concurrently throughout the lifetime of this grant:
1. Develop digital infrastructure for, and begin deploying, acquisition and business college credit courses
2. Research and test leading-edge online learning applications; continually incorporate into courses
3. Research feasibility of professional certification for federal acquisition workforce

PROCESS:
- Review current instructional programs developed / delivered by FAI
- Incorporate instructional design elements and adult learning principles for computer-based education
- Consult with academic and practitioner subject matter experts to write current case studies
- Convert programs to internet deliverable courses for college credit
- Incorporate existing, and expand upon, online mentoring program
- Continually conduct research and development on leading-edge online applications; begin including into, and upgrading, courses and mentoring programs
- Concurrently, investigate feasibility of revising and/or adding on to existing Certified Purchasing Manager (C.P.M.) exam to enable professional certification for federal acquisition personnel

AUDIENCE:

- Federal government acquisition personnel interested in continuing their education and lifelong learning
- Other public sector acquisition staff
- Others interested in private and commercial purchasing, supply management, and acquisition
- Public and private sector employees interested in college-credit education in the various disciplines of business management
- College students interested in making procurement, acquisition, purchasing, supply management a career choice

PROBLEM: Traditional Classroom Training Alone Cannot Meet the Need

- Most Federal departments and agencies are having great difficulty in funding the tuition and travel costs of classroom training for the relatively few entry level employees — let alone the tens of thousands of employees who need retraining.
- Given tight staffing constraints, many managers and supervisors are reluctant to release employees for one to two week blocks of training. Current downsizing and rightsizing initiatives will make them still more reluctant to enroll their employees even in the most critical courses.
- When they are trained at all, employees are not being trained when they need the training — namely when assigned critical contracting duties that they have never performed or that have substantially changed since last performed.
- One to two week blocks of training do not provide an ideal learning environment. Trainees often report difficulty in completing reading and homework assignments, given textbooks that range from 200 to 500 pages and are not available until the students arrive at class sites. Likewise, instructors are often hard pressed to accomplish all learning objectives in such tight confines. As a consequence, there is often little time available for student-teacher interaction outside the confines of the structured exercises.
- The ideal learning environment is that provided by colleges and universities, in which students attend courses that stretch over a quarter or semester, with ample time between class sessions for reading and talking with instructors. However, the Government has generally avoided this approach because of the difficulties in scheduling attendance by the employees off-site at college classrooms throughout a quarter or semester.
- The federal acquisition workforce is in need of a valid, professional certification recognition program in procurement and acquisition.
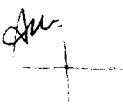
SOLUTION:

Solutions for the stated problems will be researched, solutions will be developed, and internet-based training and educational programs will be produced through a cooperative agreement in accordance with the Federal Grant and Cooperative Agreement Act 31 U.S.C. 6305, with Arizona State University and the National Association for Purchasing Management.

This joint project will address the need through a coordinated, multi-year program to:

1. Identify and adapt existing -- and develop continually emerging new-millenium -- core technologies infrastructure for development and delivery of leading-edge internet-based education.

1. Identify and adapt existing -- and develop continually emerging new-millenium -- core technologies infrastructure for development and delivery of leading-edge internet-based education.
2. Revise current, and develop new, educational content and evolving distance educational methods for training, education, and mentoring of federal and private sector professionals engaged in acquisition disciplines.
3. Develop and implement an infrastructure to deliver such content to professionals seeking college-credit courses and degrees, as well as lifelong learning and on-the-job performance aids and mentoring.
4. Investigate, and pilot, methods to customize training modules and information to individual agencies and/or organizations.
5. Conduct an integrated program of assessment to evaluate alternative educational models with respect to learning effectiveness and cost effectiveness.
6. Provide public domain curricula and technologies that can be used by public agencies, private business organizations, and educational institutions.
7. Determine the feasibility of offering professional certification to federal acquisition personnel.*

(* ~~NOTE: Initial interview and job-analysis results will reside in the public domain. All exam~~ questions and answers ~~will be copyrighted by NAPM, remain NAPM intellectual property, and will NOT be in the~~ public domain.)

This program will leverage existing technological and methodological capabilities and plans in all three organizations, and will deliver -- using best practices -- a large variety of cost-effective ($100 to $1 ROI as measured and proven by the FAI and the GSA) educational products for both college-credit and lifelong professional education and mentoring.

In addition, through ongoing collaboration with the Defense Acquisition University (DAU), the White House Office of Science and Technology Policy (OSTP), Chief Information Officers Council (CIOC), the National Economic Council (NEC), and the Office of Personnel Management (OPM), and in support of the Advanced Distributed Learning Initiative Partnership, FAI will be working to upgrade, and add value to, the constantly changing training and education needs of our national workforce.

OBJECTIVES:

- Develop online curricula and electronic performance support tools for acquisition disciplines, accessible through personal computers, PDAs, and other such devices:
  - Some courses could be almost entirely electronic (with students connected to instructors through interactive television, bulletin boards, and other such technologies).
  - Some courses may be hybrids (e.g., electronic instruction coupled with one or two days of classroom instruction, CD-ROMs/videos, audio/videoconferencing, etc.).
  - Some courses would remain entirely in the classroom (e.g., Negotiation Techniques).
- Preserve the following characteristics of more traditional instructional settings:
  - A formal curriculum.
  - Definitive periods to complete each course (which might be as long as a quarter or semester for an electronic course).
  - Final written examination at a set date for each course session.
  - One-to-one interaction between students and teachers (e.g., individual feedback on uploaded assignments).

- A formal curriculum.
- Conduct comprehensive job analysis to determine those job-related tasks performed by federal buyers that are significantly different from tasks performed by those purchasing for the commercial sector
  - If proven feasible, write exam module questions and pilot
- Rollout federal acquisition workforce professional certification program

PROCEDURES:

This project will leverage the complementary competencies of the three participating organizations -- FAI, NAPM and ASU. The existing FAI infrastructure prototype will serve as a foundation for the project. NAPM and ASU will work closely together to develop instructional content. Within ASU, there will be two participating organizations. The Instructional Support group of IT will develop technology infrastructure to enable the 21st century distributed learning environment. The College of Business (COB), in collaboration with NAPM, will develop course content utilizing the ASU, NAPM, and FAI infrastructures.

To achieve the goal of course content development, the COB will select six Business courses and will provide the support presented in the attached budget. For each selected course, the corresponding professor will be given a summer grant and a graduate assistant. Additional staff support will be provided by the existing COB Instructional Technology group.

It is expected that this effort will lead to completion of a significant portion of each course. Additional work will be carried out during the fall semester by a combination of reduced teaching schedules for some faculty, the availability of graduate assistants and the support of our staff specialists. The goal will be to complete the development of some of these courses by December 31, 1998 so that the courses would be ready for possible delivery in the spring of 1999.

One of these courses will be identified to include leading/bleeding-edge technologies so that this infrastructure can be piloted and improved upon prior to incorporating into all online courses. Throughout each of the project years, at least one content-viable course will also include many of the technologies being researched by the R&D group at ASU.

NAPM will work closely with FAI to repurpose existing educational content into online courses. Up to six initial courses have been identified by FAI. Together with subject matter experts from the federal acquisition community, and practitioners and academics from the "commercial" buying community, NAPM will convert the courses for online delivery. As ASU's Information Technology group researches, develops, tests, and approves various delivery and presentation mechanisms, more leading edge technologies will be incorporated in the learning environment.

To ensure all participants understand team dynamics and player roles, an initial project team kick-off meeting will be held at the beginning of May 1998. Other travel will be involved, but a lot of the collaboration will be conducted via distance.

This above plan is considered as the first stage in a multi-year effort. Information technologies offer exciting opportunities for enhanced quality and efficiency but they also demand unknown creative new approaches to teaching and learning that can only be discovered through continuous improvement.

Key Research and Development Events

ASU IT will conduct research in Technology Delivered Education (TDE), for both synchronous and asynchronous delivery of instruction.

- Evaluate existing tools and models including emerging standards such as IMS (Instructional Management System) and the Metadata model, along with tools such as real-time audio/video interactivity. Focus will be placed on features such as:
  - economies and ease of use
  - scalability and deployability
  - learning needs of students
  - adaptability to different subject area
  - ease of customization

- Prototype a TDE delivery model and have it reviewed by potential users;

- Develop assessment and tracking systems;

- Develop support systems (both hardware and software) to enable deployment of the TDE delivery system;

- Field-test the TDE delivery system in academic classes and online applications training;

- Put in place a flexible and expandable delivery environment to meet the current and future needs of FAI and ASU in TDE.

This is an ongoing effort of ASU and will not be just a nine-month project. Items such as field-testing the model take considerable time. Development of course materials and testing with actual students can take years. New advances in technology will need to be constantly evaluated and integrated, if appropriate, into the TDE model. The equipment that is purchased to support this research portion of the project must be flexible to adapt to changing technologies and also be expandable to meet future needs. The research equipment will not meet the needs of a large scale production rollout of the TDE environment, but will be sufficient for the evaluation, development and test portion of the project.

Key Project Events:
- By 1999, a complete, tested infrastructure freely available to private and public sector educational institutions. Research additional certification.
- By 2000, Internet-based, degree granting curricula in private and public sector acquisition disciplines supported by FAI (for public sector buyers), NAPM (for private sector buyers), ASU, and other select colleges and universities. Pilot certification exam.
- By 2001, 10,000 training instances (i.e., one person attending one course) per year via the Internet.
- By 2001, Internet Mentors installed on the computer desktops of 10,000 buyers in private and public sector entities, along with mentors on the desktops of 25,000 public and private sector Contracting Officer Representative (COR)s, providing Electronic Performance Support tools (including self-instructional, just-in-time training modules and other types of job aids) for 83 contracting/purchasing duties and 18 COR duties.
- An ROI of at least $100 in savings for every dollar invested in the training, education, and mentoring programs.

DETAILED TIMELINE:

Throughout this multi-year project, a minimum of one team meeting will be held each month.

DATES	KEY EVENTS
April 25 – May 1, 1998	• Order equipment as required • Purchase needed software / internet access • Establish office space (desks, PCs, phones, etc.) • Begin recruiting staff
Week of May 11, 1998	Full project team kick-off meeting (Tempe, Arizona): • FAI, NAPM, ASU College of Business, ASU IT • Identify project staff; hire staff; assign responsibilities • Identify ASU faculty • Identify initial courses to develop and deploy using existing technologies • Identify initial course to develop using R & D and leading-edge technology • Finalize timelines and deliverables • Coordinate beginning of certification component • Contract with psychometrician (test development expert)
May 15, 1998	• Begin reviewing existing f2f courses and text references • Assign faculty to individual courses • Schedule faculty instructor workshop (teaching faculty how to write/modify courses for, and teach interactively, in an online environment) for June 1998 • Begin working on general computer-based instructional design concepts with identified instructors • Coordinate web developers to revise existing infrastructure – FAI mentoring, NAPM online courses • Determine new programming / production / graphical elements needs • Investigate (continual basis) packaged online course software; determine applicability to project • Begin conducting comprehensive job analysis to determine those job-related tasks performed by federal buyers that are significantly different from tasks performed by those purchasing for the commercial sector (April 1, 1998 – March 30, 1999) • Consult with psychometrician to begin development of initial interviews and job analysis
June 1998	• Begin intensive content work on repurposing – and adding to -- existing courses • Decide upon delivery mechanisms for first courses • R&D – First mockup of web-based TDE delivery structure and functional description of components ready for review and comment. • Begin conducting initial interviews to identify major task areas (complete by August 1, 1998)

DATES	KEY EVENTS
July 1998	• Continued work with subject matter experts to write case studies • Infrastructure coordinated with online courses and mentoring areas • Begin investigating online student management, test documentation, and assessment options • Identify professors to continue online course development into fall semester • R&D – Complete first review process and begin rework of model. Prioritize component that have been identified for inclusion and begin the 'build or buy' analysis. • Gather job descriptions for certification. • Identify KSAs (knowledge, skills, abilities) for task areas
August 1998	• Identify grad assistants • R&D – Second mockup of TDE delivery structure and estimated schedule for component delivery available for review and comment. Begin component purchase, build and integration process. Demonstrate and test video delivery mechanisms.
September 1998	• Determine which course(s) will be deployed in December 1998 • Prepare marketing materials, and begin advertising, for course(s) • Develop job analysis questionnaire
October 1998	• Pilot test portion of course(s) • Identify next six courses for development • Set timelines for course development/deployment • Identify subject matter experts • R&D – Alpha version of TDE environment with quick hit components ready for review and testing. Continue development of components including student progress tracking database. • Print and mail 5,000 job analysis questionnaires
November 1998	• Key in response data for job analysis questionnaires (~40% response rate = 2,000 returns)
December 1998	• Deploy test first course(s) • R&D – First FAI course content modules ready for review / evaluation using alpha version of TDE components.
January 1999	• R&D – Begin testing first FAI course modules on students and evaluating effectiveness. Continue assisting in the development of module content.
February 1999	• Analyze job analysis questionnaire results

DATES	KEY EVENTS
March 1999	• R&D – Beta version of TDE environment with enhanced functionality (additional components) ready for review and comment. Continue working with content providers on refinement of existing course modules and development of additional modules. Alpha release of student assessment tools ready for review. Begin developing instructor training program. • Hold meeting to create exam specifications and perform weighting study
April 1999	• Identify participants for item-writing committee

May 1999	• Hold initial item-writing committee meeting
	  • Determine cut score
	  • Meet as necessary to refine/add/etc.
	• Begin development of specialized certification exam study materials, self-study and internet courses, etc.

June 1999	• Deploy additional online courses • Identify next courses to be developed • R&D – First GOLD release of TDE environment with enhanced functionality. Begin extensive testing of FAI training delivery environment with real students. • Draft first exam module(s) • Research and determine various certification exam delivery mechanisms
September 1999	• R&D – Begin review of last three months experience and assist in sizing production environment for FAI. Continue development of advanced TDE components and integration into content modules. • Pilot revised exam or module(s) • Gather baseline scoring / passing data to begin building database
December 1999	• R&D – Second release of TDE environment with extended functionality. Continue research and development effort to evaluate new technology innovations and determine their appropriateness for inclusion in TDE environment. • Continue pilot of revised exam or module(s) • Gather baseline scoring / passing data to begin building database • Refine certification exam as warranted
June 2000	• Continue developing/releasing additional courses • R&D – Review progress of design, development, evaluation and tracking effort.
December 2000	• Continue developing/releasing additional courses • R&D – Release three of TDE environment. Packaging for deployment of FAI curriculum beyond FAI, NAPM and ASU.
January 2001	• Official rollout of new module/revised certification exam
December 2001	• Continue developing/releasing additional courses • R&D – Release four of TDE environment.

Attachment 2

GSA/FAI SHALL

A) Deliver to NAPM/ASU current instructional programs developed by FAI:
- Provide a CD-rom covering FAI OnLine University Infrastructure, courseware, templates and technical documentation .
- Provide a disposable copy of all course materials covering all commercial item contracting functions and duties. Course materials include the Contract Specialist Workbook and text references, student guides, instructor guides, test banks, viewgraphs, and any other courseware documents

B) Work closely with NAPM to develop and transform educational content into online internet-based courses:
- Access the amount of content that should be delivered in the courses
- Evaluate strategies for student reinforcement, review, repetition and remediation
- Assist in the development of the instructional goals/objectives based on the nature of the training and needs of the students
- Assist with look and feel navigational/elements
- Evaluate the proposed technology solutions for viability with the Federal audience
- Develop collaborative classroom tools

C) Direct the research and development of an internet-based knowledge site which dynamically creates custom learning opportunities and performance support tool. The knowledge site will embody the educational, certification, and training courseware; reference materials; automated tools, and the ability to quickly access each as needed.

D) Investigate feasibility of Federal acquisition personnel obtaining professional certification under Certified Purchasing Manager (CPM) exam.
- Identify which modules are necessary for certification compliance
- Identify complexity of the modules based upon significance

E) Provide administrative support as follows:
- Review all reports within two weeks of receipt for completeness in reporting as stipulated in the Cooperative Agreement to ensure proper utilization of federal funds.
- Within one week after review, either accept or reject reports(s). Rejections will be conveyed in writing to the ASU/NAPM Project Manager(s).
- Process funds to ASU/NAPM in the most expeditious manner possible consistent with appropriate accounting procedures.
- Provide access to subject matter government experts, reference materials, and other resources as needed and when appropriate.